



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/992,862

11/05/2001

Anne-Marie Kermarrec

MS171124.1/40062.163US01

5999

7590

05/23/2006

Timothy B. Scull
Merchant & Gould P.C.
P.O. Box 2903
Minneapolis, MN 55402-0903

EXAMINER

REFAI, RAMSEY

ART UNIT

PAPER NUMBER

2152

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/992,862	Applicant(s) KERMARREC ET AL.	
	Examiner Ramsey Refai	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 20-25 and 30-39 is/are pending in the application.
- 4a) Of the above claim(s) 30-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 20-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Responsive to Amendment received on January 23, 2006. Claims 1, 20, and 23 have been amended, Claims 30-39 are new.

Election/Restrictions

1. Newly submitted claim 30-39 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Newly presented claims 30-39 are directed to a method for dynamically updating one or more partial views. These claims differ in scope to the originally presented claims 1-7 and 20-26, which are directed to a method and a computer system for disseminating information in a distributed network. Furthermore, newly presented claims 30-39 appear to be claims 8-16 of Group II of the Requirement for Restriction/Election mailed January 19, 2005, which were restricted and not elected by the Applicant.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 30-39 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

2. Claims 30-39 are withdrawn from consideration.

Claims 1-7 and 20-26 remain pending examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 1-7 and 20-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the

specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Independent claim 1 recites the newly added limitation "wherein the subset may compromise any one of the network nodes *independent of hierarchical relationships*" and Independent claim 20 recites the newly added limitation "wherein the partial view is specific to each node and *independent of hierarchical relationships*". No support for the newly added limitations was found in the specification. The newly added limitations also appear to be negative limitations used in attempt to overcome the Perlman reference. Regarding negative limitations, the MPEP states: "*Any negative limitation or exclusionary proviso must have basis in the original disclosure. If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims. ... The mere absence of a positive recitation is not basis for an exclusion. Any claim containing a negative limitation, which does not have basis in the original disclosure, should be rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.*" MPEP 2173.05(i)

4. Claims 2-7 and 21-23 depend on claims 1 and 20 respectively and therefore these claims are rejected under the same rationale.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-7 and 20-26 rejected under 35 U.S.C. 102(b) as being anticipated by Perlman (U.S. Patent No. 4,864,559).

7. As per claim 1, Perlman teaches a method of disseminating information to a plurality of nodes, the nodes connected in a network environment, said method comprising:

receiving, at a given node, a disseminated message (**Figure 7 and column 12, lines 13-17**), the message having broadcast-type information (**column 1, lines 60-65 and column 12, lines 40-53**); and

sending the received message to a plurality of other nodes identified in a partial view , wherein the partial view is specific to each node, resides locally and identifies a subset of other network nodes wherein the subset may comprise any of the network nodes (**Figure 3, element 330, Figure 8, and column 4, line 65- column 5, line 24**) independent of hierarchical relationships (**column 13, lines 5-11**).

8. As per claim 2 Perlman teaches the act of sending the message to a plurality of nodes further comprises delivery of the message to all nodes identified in the partial view (**column 2, lines 3-4 and column 4, line 65-column 5, line 24**).

9. As per claim 3, Perlman teaches each node in the network maintains a partial view (**column 12, line 66-column13, line 4 and Figure 3, element 330**).

10. As per claim 4, Perlman teaches the partial view comprises address information for a plurality of nodes on the network, but less than all nodes on the network (**column 7, lines 34-39 and column 9, lines 3-20**).

11. As per claim 5, Perlman teaches determining whether the received message has been previously received; and if the message has been previously received, then the message is not sent to any other nodes (**column 12, lines 54-65, column 2, lines 19-27 and column 4, line 65-column 5, line 24**).

12. As per claim 6, Perlman teaches the act of storing identification information related to the received message to enable the determination of whether the message has been previously received (**column 12, lines 54-65, column 2, lines 19-27 and column 9, lines 3-20**) .

13. As per claim 7, Perlman teaches determining whether the message is a broadcast-type message; and if the message is not a broadcast-type message, the message is not sent to other nodes (**column 12, lines 15-65 and Figure 7**).

14. As per claim 20, Perlman teaches a computer system for disseminating information in a distributed network comprising:

a receive module for receiving a broadcast message (**Figure 7 and column 12, lines 13-17**);

a storage module for storing information related to other nodes in the network in a partial view; wherein the partial view is specific to each node (**column 7, lines 15-41; database storage**) and independent of hierarchical relationships (**column 13, lines 5-11**);

a communication module for transmitting broadcast information to nodes indicated in the partial view (**column 1, lines 35-52**).

15. As per claim 21, Perlman teaches a partial view comprises address information for some of the nodes in the network (**column 2, lines 3-4 and column 4, line 65-column 5, line 24**).

16. As per claim 22, Perlman teaches a communication module transmits broadcast information to all nodes identified in the partial view (**column 10, lines 46-58**).

17. As per claim 23, Perlman teaches the computer system is part of a distributed network of computer systems, and wherein other computer systems in the network maintain a partial view of the entire network (**column 10, lines 46-58 and Figure 1**).

18. As per claim 24, Perlman teaches a network of nodes having the ability to communicate information between said nodes, said network comprising:

an application-based broadcast protocol using a gossip-based algorithm (**column 6, lines 35-47**);

each node maintains a partial view of the entire network (**column 12, line 66-column 13, line 4 and Figure 3, element 330**); and

each node gossips only to other nodes identified in the partial view (**column 10, lines 46-58, column 7, lines 34-39 and column 9, lines 3-20**).

19. As per claim 25, Perlman teaches a computer readable medium having stored thereon a data structure comprising:

a first identification field for storing address location information for a node in a network environment (column 8, lines 11-24 and column 2, lines 19-27);

a second identification field for storing address location information for another node in a network environment (column 8, lines 11-24 and column 2, lines 19-27); ;

wherein the first and second identification fields represent a partial view of the network environment (column 2, lines 3-4 and column 4, line 65-column 5, line 24) ; and

wherein the data structure is used for a gossip-based communication between the nodes in the network (column 1, lines 7-12 and column 2, lines 19-27) .

20. As per claim 26, Perlman teaches a plurality of additional identification fields, each field identifying address information for different nodes in the network (column 8, lines 11-24 and column 2, lines 19-27).

Response to Arguments

21. Applicant's arguments have been fully considered but they are not persuasive.

- In the remarks, the Applicant argues in substance that:

Argument A:

Perlman does not disclose a partial view comprising a subset of network nodes independent of hierarchical relationships

Argument B:

Perlman does not disclose a network of nodes having the ability to communicate information between said nodes comprising an application-based protocol using a gossip-based algorithm.

- In response, to:

Argument A:

Examiner respectfully disagrees. Perlman teaches that nodes may communicate directly in a non-hierarchical network. These nodes each contain a multicast neighbor list stored in a forwarding database,

which is a corresponding list of known neighboring nodes. The multicast neighbor list in each node is a specific “partial view” of nodes connected in a network. Therefore Perlman meets the scope of the claimed limitation. (See column 13, lines 5-10, column 1, lines 44-65, column 5, lines 1-25, column 9, lines 3-20).

Argument B:

Examiner respectfully disagrees. Although Perlman does not use the term “gossip-based algorithm”, Perlman does teach this algorithm as define in page 2 of the Applicant’s specification, which states that:

“Gossip-based protocols essentially rely on one primary assumption: **when a node receives a new message, the receiving node forwards the message to a random collection of other nodes. In a typical scenario, each node that receives the information is responsible for conducting the information on to a predetermined number of other nodes, e.g., ten other neighboring nodes in a network having one hundred thousand nodes.** Furthermore, gossip-based algorithms do not require back-and-forth communication between nodes, which would significantly impact performance. Instead, each node simply passes the information along without attempting to determine if the receiving node has already received the information.”

Perlman teaches that nodes can communicate indirectly or directly with other nodes in the network by forwarding messages. Nodes can also send multicast messages directed to all nodes in a range of nodes or to nodes in the entire network. (See column 1, lines 44-65, column 5, lines 1-25, column 9, lines 3-20). Therefore, Perlman meets the scope of the claimed limitation.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2152


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Refai whose telephone number is (571) 272-3975. The examiner can normally be reached on M-F 8:30 - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ramsey Refai
Examiner
Art Unit 2152
May 17, 2006



BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER